

## PROJECT DESCRIPTION

### GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE MODIFICATION OF THE TRAFFIC CONTROL SIGNAL AT MD 450 (ANNAPOLIS ROAD) AND FORBES BLVD. IN PRINCE GEORGES COUNTY, MD 450 IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

### INTERSECTION OPERATION

THIS INTERSECTION IS TO BE MODIFIED TO OPERATE IN A NEMA SIX PHASE, FULLY TRAFFIC-ACTUATED MODE. THERE WILL BE EXCLUSIVE/PERMISSIVE LEFT TURNS ON THE MD 450 APPROACHES. THE THROUGH MOVEMENTS ON MD 450 WILL OPERATE CONCURRENTLY. THE THROUGH MOVEMENTS ON MD 193 WILL OPERATE CONCURRENTLY.

### CONTROLLER REQUIREMENTS

THE EXISTING CONTROLLER AND CABINET WILL BE UTILIZED.

### SPECIAL NOTE

72 HOURS PRIOR TO ANY WORK ON THE TRAFFIC SIGNALS, THE CONTRACTOR SHALL NOTIFY THE DISTRICT 3 TRAFFIC SECTION REPRESENTATIVE, MR. RICHARD BUETTNER (301-513-7316) AND THE SIGNAL OPERATIONS SUPERVISOR, MR. EDWARD RODENHIZER (410-787-7652).

FORBES BLVD. TO THE NORTH WILL BE CONSTRUCTED WHILE UNDER TRAFFIC. THIS MAY REQUIRE THE RELOCATION OF SIGNAL HEADS, NEW LOOP DETECTORS AND STOP LINE DURING PHASE III. THESE MODIFICATIONS WILL BE AS DIRECTED BY THE ENGINEER AND THE OFFICE OF TRAFFIC AND SAFETY.

ALL UNDERGROUND AND OVERHEAD UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THESE UNDERGROUND AND OVERHEAD UTILITIES MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE PROJECT ENGINEER IMMEDIATELY.

## EQUIPMENT LIST "A"

### A. EQUIPMENT TO BE SUPPLIED BY THE ADMINISTRATION

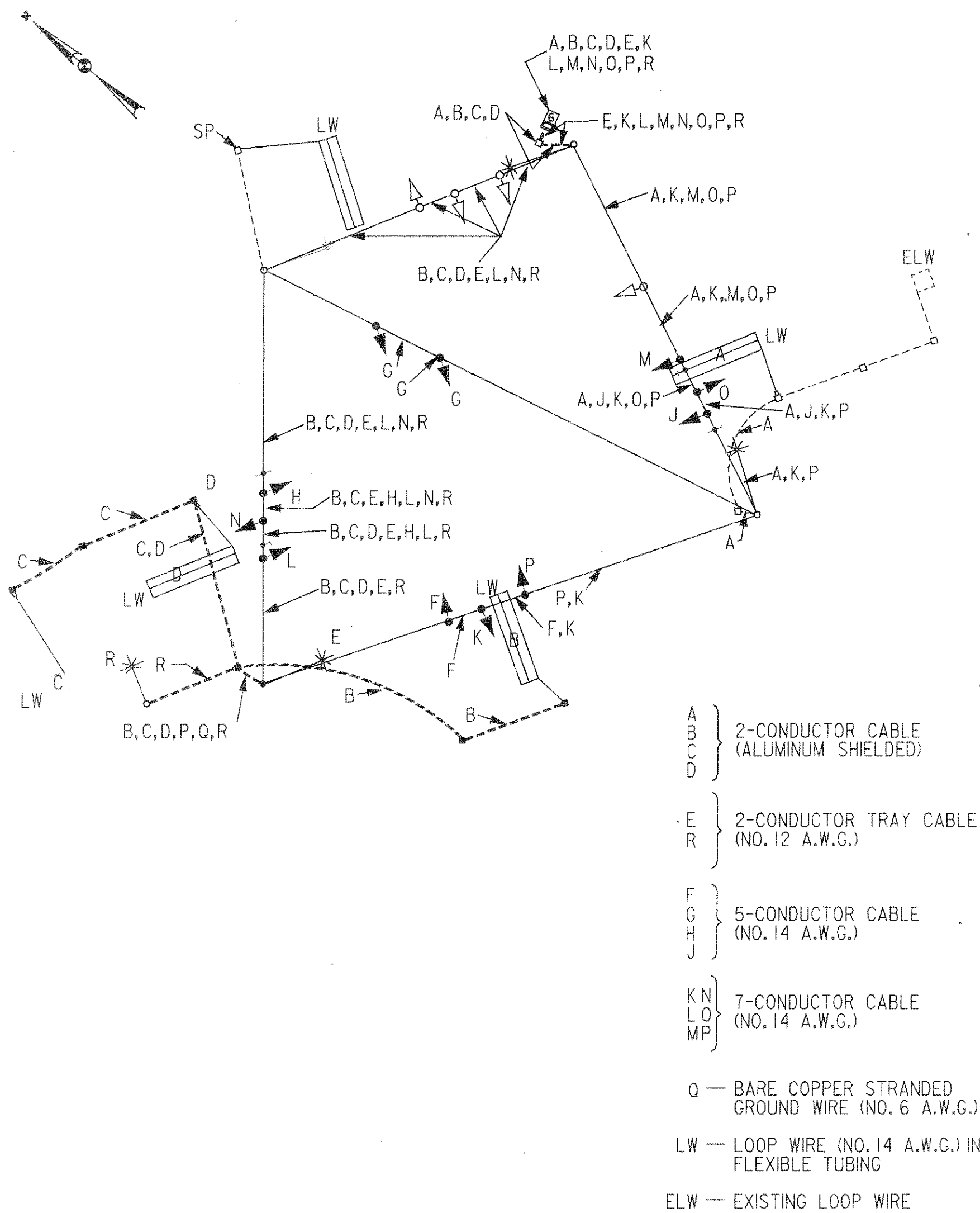
CATEGORY CODE NO.	SPEC. SECTION	QUANTITY	DESCRIPTION
960015	814	5 EA.	12 IN. 1 WAY 3 SECTION (R,Y,G) ADJUSTABLE POLYCARBONATE VEHICLE SIGNAL HEAD WITH SPAN MOUNTING HARDWARE AND TUNNEL VISORS
960020	814	2 EA.	12 IN. 1 WAY 5 SECTION (R,Y,G,YA,GA) ADJUSTABLE POLYCARBONATE VEHICLE SIGNAL HEAD WITH SPAN MOUNTING HARDWARE AND TUNNEL VISORS
900000	814	2 EA.	8 IN./12 IN. 1 WAY 5 SECTION (8" R,Y,G - 12" YA,GA) ADJUSTABLE POLYCARBONATE VEHICLE SIGNAL HEAD WITH SPAN MOUNTING HARDWARE AND TUNNEL VISORS

## EQUIPMENT LIST "B"

### B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

CATEGORY CODE NO.	SPEC. SECTION	QUANTITY	DESCRIPTION
114210	104	250 L.F.	6 IN. YELLOW REMOVABLE PREFORMED PAVEMENT MARKING TAPE
114245	104	97 L.F.	24 IN. WHITE REMOVABLE PREFORMED PAVEMENT MARKING TAPE
203030	205	1 C.Y.	TEST PIT EXCAVATION
801004	801	4.65 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
802501	810	12 L.F.	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
805125	805	385 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT - TRENCHED
805160	805	25 L.F.	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
811001	811	6 EA.	FURNISH AND INSTALL ELECTRICAL HANDHOLE
837001	804	1 EA.	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
860015	814	5 EA.	INSTALL 12 IN. 1 WAY 3 SECTION (R,Y,G) POLYCARBONATE SIGNAL HEAD - SPAN MOUNT
860020	814	2 EA.	INSTALL 12 IN. 1 WAY 5 SECTION (R,Y,G,YA,GA) POLYCARBONATE SIGNAL HEAD - SPAN MOUNT
860265	814	1 EA.	RELOCATE EXISTING SIGNAL HEAD
861104	810	2105 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861107	810	115 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)
861108	810	1420 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
861116	810	825 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 A.W.G.)
862101	810	1870 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
862102	815	526 L.F.	FURNISH AND INSTALL SAWCUT FOR SIGNAL (LOOP DETECTOR)
866104	818	1 EA.	FURNISH AND INSTALL 20 FT. LIGHTING ARM ON SIGNAL STRUCTURE
869101	819	293 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 1/4 IN. DIAMETER
862102	819	293 L.F.	FURNISH AND INSTALL STEEL SPAN WIRE - 3/8 IN. DIAMETER
800000	805	95 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
800000	813	4 EA.	RELOCATE EXISTING OVERHEAD SIGN
800000	814	2 EA.	INSTALL 8 IN./12 IN. 1 WAY 5 SECTION (8" R,Y,G - 12" YA,GA) POLYCARBONATE SIGNAL HEAD - SPAN MOUNT
800000	806	1 EA.	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM VAPOR LUMINAIRE WITH PHOTO-CELL
800000	818	1 EA.	FURNISH AND INSTALL 12 IN. X 32 FT. STRAIN POLE (2-PLY)
800000	XXX	LUMP SUM	REMOVAL OF EXISTING TRAFFIC SIGNAL EQUIPMENT

## WIRING DIAGRAM



## PHASE DIAGRAM

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 + 5	R	R	R	R	R	R	R	R	R	R	R	R
1 + 5 CHANGE TO PHASE 1 + 6, PHASE 2 + 5 OR PHASE 2 + 6	G	G	G	G	G	G	G	G	G	G	G	G
PHASE 1 + 6	G	G	G	R	R	R	R	R	R	R	R	R
1 CHANGE	G	G	G	R	R	R	R	R	R	R	R	R
PHASE 2 + 5	R	R	R	G	G	G	R	R	R	R	R	R
5 CHANGE	R	R	R	G	G	G	R	R	R	R	R	R
PHASE 2 + 6	G	G	G	G	G	G	R	R	R	R	R	R
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R
PHASE 4 + 8	R	R	R	R	R	R	G	G	G	G	G	G
4 + 8 CHANGE	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y
FLASHING OPERATION	F	F	F	F	F	F	F	F	F	F	F	F

TEMPORARY SIGNAL  
PHASE III

DWG. NO.  
TS-4



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION

MD 450 (ANNAPOLIS ROAD) AT FORBES BLVD.

LOG MILE NO. 16045006.59 8 - 96

S. BLOSS  
T. HANNAN  
NONE

N/A  
N/A  
PRINCE GEORGES

TS-3600-X3-GI

350 465

THE WILSON T. BALLARD CO.  
CONSULTING ENGINEERS  
OWINGS MILLS, MARYLAND

AUGUST 1996 - WTB  
MODIFY EXISTING SIGNAL  
SHA NO. PG9005171